

ABSTRACT OF THE DISCLOSURE
CONTAMINATION-RESISTANT COATED SUBSTRATES

5 A coated substrate is claimed. The coating, disposed on the substrate,
comprises a self-assembled film having at least one bilayer. Each bilayer comprises a
polyanion electrolyte layer and a polycation electrolyte layer. The uppermost layer or
exposed layer of the coating comprises a fluoroalkyl group. Each bilayer thickness
ranges from about 0.1 nanometers to about 20 nanometers. The resulting coated
substrate has a low surface energy and is hydrophobic and/or oleophobic.

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